

Case 3294***Gynacantha* Rambur, 1842 and *Triacanthagyna* Selys, 1883 (Insecta, Odonata): proposed conservation of usage by designation of *Gynacantha nervosa* Rambur, 1842 as the type species of *Gynacantha***

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Abstract. The purpose of this application, under Article 70.2 of the Code, is to conserve the accustomed usage of the names *Gynacantha* Rambur, 1842 and *Triacanthagyna* Selys, 1883 for two genera of aeshnid dragonflies. The names are objective synonyms but are currently in use for two distinct groups of species. It is proposed that *Gynacantha nervosa* Rambur, 1842 should be designated as the type species of *Gynacantha*.

Keywords. Nomenclature; taxonomy; Odonata; AESHNIDAE; *Gynacantha*; *Triacanthagyna*; *Gynacantha nervosa*; *Triacanthagyna trifida*; dragonflies; Neotropical region; tropics.

1. Rambur (1842, p. 209) established the nominal genus *Gynacantha* for dragonflies of the family AESHNIDAE characterized by females with a two or three pronged sclerotized process on the venter of abdominal segment 10. He included seven new species, *G. quadrifida*, *G. furcata*, *G. trifida*, *G. bispina*, *G. subinterrupta*, *G. bifida* and *G. nervosa*, without designating a type species.

2. Selys (1883, p. 745) established the nominal genus *Triacanthagyna* for species characterized by females with a three-pronged process on the venter of abdominal segment 10 and restricted the name *Gynacantha* to those species with only two-pronged processes. Selys included only *G. trifida* Rambur, 1842 (p. 210) in his new genus, which made it the type species by monotypy.

3. Kirby (1890, p. 94) retained *Gynacantha trifida* Rambur in the nominal genus *Gynacantha* and without explanation designated it as type species of *Gynacantha*, thus making *Triacanthagyna* Selys, 1883 a junior objective synonym of *Gynacantha* Rambur, 1842 (Article 61.3.3 of the Code). Kirby (1890, p. 94) established the genus *Acanthagyna* for the other species originally included in the nominal genus *Gynacantha* Rambur, 1842 and included ten additional species. Although he did not provide a diagnosis or description, nor designate a type species, the name *Acanthagyna* Kirby, 1890 is available, by indication, under Article 12.2.5 of the Code. Later, Kirby (1897, pp. 614-615) explained why he designated *G. trifida* as type species of *Gynacantha*. In a paper on the Cuban fauna, Selys (1857, p. 459) included two species (*G. trifida* and *G. septima* n. sp.) in the nominal genus *Gynacantha* Rambur, 1842, without

designating a type species. Kirby (1897, pp. 614–615) erroneously thought that Selys (1857) had established *G. trifida* as the type species of *Gynacantha* and was only quoting Selys in his 1890 catalogue.

4. Cowley (1934, pp. 201–202) subsequently designated *Gynacantha nervosa* Rambur, 1842 (p. 213), as the type species of *Acanthagyna*. Calvert (1905, p. 189), who did not use the name *Acanthagyna*, had also designated *G. nervosa* as the type species of *Gynacantha* Rambur, 1842. However, the designation of *G. nervosa* as type species of *Gynacantha* was invalid because of the prior designation of *G. trifida* by Kirby (1890) (see Article 69.1).

5. Although Kirby's nomenclatural act is valid under Article 69.1 most odonatologists have followed the usage established by Selys (1883, p. 745) for the names *Gynacantha* and *Triacanthagyna*. The name *Acanthagyna* has been disregarded or completely ignored (see McLachlan, 1896, p. 411; Calvert, 1905, p. 189; Kimmins, 1936, pp. 74–75; Bridges, 1994, pp. iii, 51).

6. The generic names *Gynacantha* and *Triacanthagyna*, in the widely accepted sense of Selys (1883, p. 745), are not congeneric; they refer to two undoubtedly different groups (see Williamson, 1923; von Ellenrieder & Garrison, 2003). *Triacanthagyna* includes nine neotropical species, distributed from Florida in the U.S.A. southwards to eastern Argentina. *Gynacantha* is the most speciose genus within the family AESHNIDAE with over 80 described pantropical species. The generic names *Acanthagyna* Kirby and *Gynacantha* sensu Kirby have rarely been used in the primary literature since 1890 (see Kirby, 1897; Klots, 1932; Cowley, 1934; Rácenis, 1953; Balinsky, 1961; Pinhey, 1962; Hedge & Crouch, 2000). However, the names *Gynacantha* sensu Selys, 1883 and *Triacanthagyna* have been widely used for almost a hundred different species of dragonflies worldwide. There are over 60 worldwide references (by 49 authors) (i.e. Williamson, 1923; Paulson, 1977; Davies & Tobin, 1985; Needham et al., 2000; von Ellenrieder & Garrison, 2003) to the name *Triacanthagyna* and over 120 (by 100 authors) (i.e. Williamson, 1923; Fraser, 1962; Paulson, 1977; Davies & Tobin, 1985; Needham et al., 2000; von Ellenrieder & Garrison, 2003) to the name *Gynacantha* (sensu Selys, 1883). The Commission Secretariat holds lists of the additional references. In order to maintain stability in the nomenclature of this group we propose that the objective synonymy of *Gynacantha* and *Triacanthagyna* be removed by validating the designation of *Gynacantha nervosa* Rambur, 1842, by Calvert (1905, p. 189) as the type species of *Gynacantha*. This action will make the confusing name *Acanthagyna* invalid as a junior objective synonym of *Gynacantha*.

8. The International Commission on Zoological Nomenclature is accordingly asked:

- (1) to use its plenary power to set aside all previous fixations of type species for the nominal genus *Gynacantha* Rambur, 1842 before the designation by Calvert (1905) of *Gynacantha nervosa* Rambur, 1842;
- (2) to place on the Official List of Generic Names in Zoology the following names:
 - (a) *Gynacantha* Rambur, 1842 (gender: feminine), type species by subsequent designation by Calvert (1905) *Gynacantha nervosa* Rambur, 1842, as ruled in (1) above;
 - (b) *Triacanthagyna* Selys, 1883 (gender: feminine), type species by monotypy *Gynacantha trifida* Rambur, 1842;

- (3) to place on the Official List of Specific Names in Zoology the following names:
- (a) *nervosa* Rambur, 1842, as published in the binomen *Gynacantha nervosa* (specific name of the type species of *Gynacantha* Rambur, 1842, as ruled in (1) above);
 - (b) *trifida* Rambur, 1842, as published in the binomen *Gynacantha trifida* (specific name of the type species of *Triacanthagyna* Selys, 1883).

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Acknowledgement of receipt of this application was published in BZN **60**: 178.

Comments on this case are invited for publication (subject to editing) in the *Bulletin*; they should be sent to the Executive Secretary, I.C.Z.N., Natural History Museum, Cromwell Road, London SW7 5BD, U.K. (e-mail: iczn@nhm.ac.uk).